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INTERNATIONAL BUREAU

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October 27, 1995

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W., Room 222
Washington, D.C. 20554

RE: CC Docket 92-297

Dear Mr. Caton:

Pursuant to Section 1.1204(b)(7) of the Commission's rules, 47 C.F.R. § 1.1204(b)(7), this will serve to indicate that on October 26, 1995 Scott Harris, Tom Tycz, Harry Ng, Fern Jarmulnek, Karl Kensinger, Giselle Gomez, Jennifer Gilsenan, and Joslyn Read of the International Bureau held a Status Conference, with the attached list of participants, to discuss the submissions of recent GSO/FSS satellite applications in the 20/30 GHz band to the International Telecommunications Union (ITU). The attached documents formed a basis of the discussions.

The matter discussed was timely submission of Appendix 4 information to the ITU.

Sincerely,

Jennifer M. Gilsenan

No. of Copies rec'd 0+1
List ABCDE

20/30 GHz Satus Conference Attendees

October 26, 1995

Name	Organization	Phone #	Fax #
Scott Harris	FCC	202-739-0400	
Tom Tycz	FCC	202-739-0566	202-[redacted]887-6121
ROBERT SORBELLO	ORION	301 258-3220	301 258 3319
Henry Goldberg	PAS	202 429 4902	202 429 4912
RAY BENDER	Lockheed Martin	(202) 857-2758	(202) 857-2900
RICHARD BARNETT	" "	(301) 229-0204	(301) 320-2421
Charles Milkis	VisionStar	202-785-2828	202-785-1504
Jennifer Manner	Akin Gump for TELEDESIC	202) 887-4576	202) 887-4288
Michele Pistone	Willkie Farr for Loral Aerospace	202-[redacted] 4745	202 887-8979
JEFF KRAUSS	VisionStar	301 309 3703	301 309 9323
Andrew D'Uva	Willkie Farr for Loral Aerospace Holdings	202-429-4773	202-887-8979
Vu Phan	Hughes Comms.	(310) 607-4515	(310) 607-4015
Jim Barker	Latham & Watkins for Hughes	202-637-2231	202-637-2201
David Moskowitz	EchoStar	303-799-[redacted]x5523	303-799-0354
Dan Goldberg	PanAmSat	202-429-4900	202-429-4912
Dennis Dietelman	Motorola	(602) 732-3942	732-2332
PHILIP MALET	STEPTOE + JOHNSON	(202) 371-1893	(202) 842-3578
Robert Nelson	GEAmericom	609 987 4321	609 987 4167
Peter Rohrbach	Hogan + Hartson for GE	202-637-8631	202-637-5910
David G. O'Neil	Rini, Coran & Carroll for	202-296-2007	202-429-0537
David M. Drucker	KaStar Sat Corp	303-526 1039	303 670-5103
Lawrence Williams	Teledesic Corp.	202.296.8047	202 296.8953

(2)

20/30 GHz Satus Conference Attendees

October 26, 1995

Name	Organization	Phone #	Fax #
FRANK X. SOLOMON	MORNING STAR	202-783-0338	202-783-0404
Frank Young	Morning Star	202-663-9080	202-331-8001
Jim McCullough	AT&T	908-221-6957	908-221-4593
Rich Currier	AT+T	908-949-5664	908-949-8088
REX HOLLIS	SPACE SYSTEMS/LORAL	(703) 416-5525	(703) 416-5563
Bill GAMBLE	NTIA	202-482-1850	202-482-4396
Pantelis Michalopoulos	Steptoe & Johnson MOTOROLA	(202) 429-64[illegible]	(202) 429-3902
David Keir	Leventhal Senter/TRW	202-429-8970	202-293-7783
Albert Shuldiner	Vinson & Elkins/NetSat28	202-639-6722	202-639-6604
Julian Shepard	Verner Liipfert/Orion	202-378-6111	202-371-6279
Stephen Goodman	AT&T	202-371-9100	202-371-1497
Joslyn Read	FCC/IB/SRD	202-739-0427	202-887-6121
Fern Jarmulnek	FCC/IB/SRD	202-739-0739	202-887-6126
Giselle Gomez	FCC/IB/SRD	202-739-0737	202-887-6126
Karl Kensinger	FCC/IB/SRD	202-739-0742	"
Jennifer Gilsenan	FCC/IB/SRD	202-739-0736	" "
HARRY NG	FCC/IB/SRD	202-739-0748	" "

AGENDA FOR STATUS CONFERENCE
ON GSO/FSS APPLICANTS FOR
THE 20/30 GHZ BAND

October 26, 1995
FCC International Bureau
2:00-4:00 pm
Room 825

1. Opening Remarks

2. ITU Submission of Appendix 4 for 28 GHz GSO/FSS Satellites

   a. 2^0 spacing

   b. Proposal for Generic Appendix 4 Form

3. Schedule

4. Other Business

Schedule For ITU Submissions

November 17, 1995 **End of WRC-95.**

November 3, 1995

- Report to Commission whether industry has reached consensus on orbital locations.
- If consensus has been reached, each company can prepare Appendix 4s for agreed upon slots including inter-satellite links.
- If no consensus has been reached, Commission will designate for each company the same number of slots as the number of satellites applied for and the company will prepare Appendix 4s for those slots without inter-satellite links.

November 8, 1995

- Applicants must submit Appendix 4s to the Commission and NTIA for review.

  NTIA Address and contact:

  Department of Commerce
  NTIA
  Room 4600
  14th and Constitution Avenue, N.W.
  Washington, D.C. 20230
  Attn: Mr. William Gamble

November 13/14, 1995

- Commission will submit to the ITU those Appendix 4s that are complete, accurate and received by the 8th.

***** Appendix 4 submission for each orbital location is not to exceed 35 pages. *****

Frequency bands for inter-satellite links

Taking both government and non-government requirements into account, the entry for the inter-satellite link in the Appendix 4 submission should be

54.25-58.2 GHz
59-64 GHz
65-71 GHz[1]
116-126 GHz

Note 1: The use of any assignments in this band will be operated under ITU-RR 342 or subject to the result of future WRCs.

ITU-BR information pertaining to the government use of the 17.8-21.2 GHz and 30-31 GHz bands

USCSID-A1	0 EL
USCSID-A2	44 EL
USCSID-A3	75 EL
USCSID-A4	82 EL
USCSID-A5	92 EL
USCSID-A6	110 EL
USCSID-E1	10 WL
USCSID-E2	13 WL
USCSID-E3	24 WL
USCSID-E4	30 WL
USCSID-W1	141 WL
USCSID-W2	144 WL
USCSID-P	non-GSO (63°, 39400-1000 km, 8 satellites)

* * * * *

US334 In the band 17.8 - 20.2 GHz, Government space stations and associated earth stations in the fixed-satellite (space-to-Earth) service may be authorized on a primary basis. For a Government geostationary satellite network to operate on a primary basis, the space station shall be located outside the arc measured from East, 70° W to 120° W. Coordination between Government fixed-satellite systems and non-government systems operating in accordance with the United States Table of Frequency Allocation is required. (MO&O adopted on July 28, 1995 and released on July 31, 1995)

ITU information pertaining to Canadian GSO satellites using the 20/30 GHz band

CANSAT KA-1	107.3 WL
CANSAT KA-2	111.1 WL
CANSAT KA-3	118.7 WL

DATE (Day/Month/Year)	/ /	FORM OF NOTICE SATELLITE NETWORK (APPENDIX 4)	PAGE 1 OF 27	AP4
Administration Serial Number				

NOTIFYING ADMINSTRATION	RR1042	RR1047A	NOTIFICATION INTENDED FOR ADD	MOD	SUP
USA /	Advance Publication [X]	Request for Assistance of the IFRB [ ]	[X]	[ ]	[ ]

SAMPLE

IFRB IDENTIFICATION NO. OF NETWORK TO BE MODIFIED/SUPPRESSED

B. CHARACTERISTICS OF THE NETWORK

1. NAME OF THE SPACE STATION: USASAT

2. DATE OF BRINGING INTO USE: DAY 01 | MONTH 01 | YEAR 98

REFERENCE TO PREVIOUS SPECIAL SECTION NUMBER (if network modified): / Number

3a. ADMINISTRATIONS IN GROUP: USA

3b. OPERATING AGENCY OR COMPANY: 022

3c. ADMINISTRATION RESPONSIBLE FOR THE STATION: USA

4. ORBITAL INFORMATION

a. FOR GEOSTATIONARY SATELLITES ONLY

1. NOMINAL ORBITAL LONGITUDE		2. LONGITUDINAL TOLERANCE		3. INCLINIATION EXCURSION	4. VISIBILITY ARC				5. SERVICE ARC			
Degrees	E/W	Degrees To West	Degrees To East	Degrees	From W	E/W	To E	E/W	From W	E/W	To E	E/W
36 • 0	E	0 • 1	0 • 1	0 • 1	18	W	44	E	18	W	44	E

6. REASON FOR SERVICE ARC < VISIBILITY ARC ATTACHED [ ]

b. FOR NON-GEOSTATIONARY SATELLITES ONLY

1. INCLINATION ANGLE	2. PERIOD			3. APOGEE	4. PERIGEE	5. CELESTIAL BODY	6. NUMBER OF SATS.
Degrees	Days D	Hours Hours H	Min	(km)	(km)		
•							

GENERAL NOTES:

i This form of notice consists of four parts — 1, 2, 3 et 4. In each part, each information item/data field includes a number in its label. This number is the same as that used for the same item in Appendix 4 (ORB-88) with the same part.
For example, on the page labelled "Form AP4-2" (at the bottom), the field "4a1. Maximum power density" is the first item in section (a) of the paragraph numbered 4 in Part C.
The items from parts F and G of Appendix 4 have been included in the parts C and D referred to above. The items from these parts have the letters F and G (correspondingly) preceding the number that is included in their labels.

ii Data items that are related are grouped together in a box. For example, the page labelled "Form AP4-2" (at the bottom) contains a box titled "Emissions and power characteristics". It is possible to specify 6 different emissions with the associated power and power density information in this box. If there are more emissions, use another page of the same type to provide additional data, after checking (X) the field labelled "More emissions on next page" on the preceding page. In all cases where there is more information than can fit in a box, follow this procedure.

iii This form can be used to add, modify or suppress an existing station, by checking the corresponding box at the top right-hand corner of this page in the area titled "Notification intended for". In the case of a modification of an existing station, where certain data fields are to be added, modified or suppressed, provide ALL the data in the particular box as they would look after the change. In addition, indicate that the corresponding beam, associated station or frequency range value is being modified by entering M in the field that has been provided for this purpose at these levels.

iv Certain fields in this notice form have a superscript "1" as part of their labels. This has the following meaning:

1. This information is to be provided only if available.

C. SATELLITE NETWORK CHARACTERISTICS IN THE EARTH-TO-SPACE DIRECTION

SATELLITE RECEIVING ANTENNA BEAM DETAILS — PAGE 2 OF 27

5. CHARACTERISTICS OF THE BEAM

ADD/MOD/SUP of the beam: A

b. RECEIVING BEAM DESIGNATION: K1R

NOTE: For a steerable beam, the third character of the beam designation shall be "R".

OLD BEAM DESIGNATION (if changed):

ANTENNA CHARACTERISTICS

	+/-	dBi
c1/d1/f1. MAXIMUM ISOTROPIC GAIN	+	35.0

g. POLARIZATION [1]:

c2/d2. ANTENNA GAIN CONTOURS DIAGRAM ATTACHED. SEE FIGURE NO.: G2

e/f2. ANTENNA RADIATION PATTERN DIAGRAM ATTACHED. SEE FIGURE NO.:

h. ESTIMATED ANTENNA GAIN DIAGRAM VS ORBIT LONGITUDE ATTACHED. SEE FIGURE NO.: G3

INFORMATION TO BE PROVIDED FOR THIS RECEIVING ANTENNA BEAM

2a. CLASS OF STATION	2b. NATURE OF SERVICE	2a. CLASS OF STATION	2b. NATURE OF SERVICE
EC	CP		

6. RECEIVING SYSTEM NOISE TEMPERATURE: 800 Kelvins

PERIOD OF VALIDITY: 20 Years

1. SERVICE AREA: *

OR SERVICE AREA ATTACHED SEE FIGURE NO.: G2

3/Fb. FREQUENCY RANGE WITHIN WHICH THE CARRIERS WILL BE LOCATED

	Add/Mod/Sup of the freq. range	FREQUENCY	k/M/G HZ	IFRB IDENTIFICATION NUMBER for modification/suppression
FROM	A	27500.0	M	
TO	A	30000.0	M	

INFORMATION RELATED TO THE ASSOCIATED TRANSMITTING STATION(S)

EMISSIONS AND POWER CHARACTERS

7/4a3. NECESSARY BANDWIDTHOR Fc/G2a. DESIGNATION OF EMISSION [1]	4a2/4c. TOTAL PEAK POWER [1] +/- dBW	4a1. MAXIMUM POWER DENSITY +/- dBW/Hz	4d. MINIMUM CARRIER POWER [1] +/- dBW	Fd/G2b. SPACE/EARTH STATION E.I.R.P. [1] +/- dBW	8. MODULATION CHARACTERISTICS ATTACHED. SEE ATTACHMENT NO.[1]
24M0F3F	+ 20.0	- 50.3			

F. SPACE STATION CHARACTERISTICS OF TRANSMITTING SPACE STATION FOR SPACE-TO-SPACE RELAYS

ADD/MOD/SUP of the station:

a. SPACE STATION NAME:

G2c. TELECOMMAND INFORMATION [1] ATTACHED. SEE ATTACHED NO.:

EARTH STATION

ADD/MOD/SUP of the station: A

DESIGNATION OF TYPICAL EARTH STATION: Typical 5.0 m

4b1. RADIATION PATTERN (give reference pattern or provide diagram): ITU-RS RR App 29

4b2. ANTENNA RADIATION DIAGRAM ATTACHED SEE FIGURE NO.:

MORE EMISSIONS ON NEXT PAGE:

MORE ASSOC. TRANSMITTING STATIONS ON NEXT PAGE: X

REMARKS: * See Figure No. G2

NOTES ON FILLING IN THIS PAGE:
FOR EACH BEAM FIRST FILL IN THE BOX TITLED "CHARACTERISTICS OF THE BEAM".
FOR EACH EARTH-TO-SPACE SERVICE AREA ASSOCIATED WITH THIS BEAM, FILL IN THE UPPER PORTION OF THE BOX TITLED "INFORMATION TO BE PROVIDED FOR THIS RECEIVING ANTENNA BEAM". FOR EACH SIZE (TYPE) OF TRANSMITTING EARTH STATION ANTENNA, FILL IN THE PORTION OF THE BOX TITLED "INFORMATION RELATED TO THE ASSOCIATED TRANSMITTING STATION(S)". USE ADDITIONAL PAGES AS NECESSARY. IF THIS IS A SPACE-TO-SPACE RELAY, IDENTIFY THE OTHER SPACE STATION(S) IN THE BOX TITLED "SPACE STATION". USING AS MANY PAGES AS NECESSARY.

C. SATELLITE NETWORK CHARACTERISTICS IN THE EARTH-TO-SPACE DIRECTION

SATELLITE RECEIVING ANTENNA BEAM DETAILS — PAGE 3 OF 27

5. CHARACTERISTICS OF THE BEAM

ADD/MOD/SUP of the beam: A

b. RECEIVING BEAM DESIGNATION: K1R

NOTE: For a steerable beam, the third character of the beam designation shall be "R".

OLD BEAM DESIGNATION (if changed):

ANTENNA CHARACTERISTICS

	+/-	dBi
c1/d1/f1. MAXIMUM ISOTROPIC GAIN	+	35.0

g. POLARIZATION [1]:

c2/d2. ANTENNA GAIN CONTOURS DIAGRAM ATTACHED. SEE FIGURE NO.: G2

e/f2. ANTENNA RADIATION PATTERN DIAGRAM ATTACHED. SEE FIGURE NO.:

h. ESTIMATED ANTENNA GAIN DIAGRAM VS ORBIT LONGITUDE ATTACHED. SEE FIGURE NO.: G3

INFORMATION TO BE PROVIDED FOR THIS RECEIVING ANTENNA BEAM

2a. CLASS OF STATION	2b. NATURE OF SERVICE	2a. CLASS OF STATION	2b. NATURE OF SERVICE
EC	CP		

6. RECEIVING SYSTEM NOISE TEMPERATURE: 800 Kelvins

PERIOD OF VALIDITY: 20 Years

1. SERVICE AREA: *

OR SERVICE AREA ATTACHED SEE FIGURE NO.: G2

3/Fb. FREQUENCY RANGE WITHIN WHICH THE CARRIERS WILL BE LOCATED

	Add/Mod/Sup of the freq. range	FREQUENCY	k/M/G HZ	IFRB IDENTIFICATION NUMBER for modification/suppression
FROM	A	27500.0	M	
TO	A	30000.0	M	

INFORMATION RELATED TO THE ASSOCIATED TRANSMITTING STATION(S)

EMISSIONS AND POWER CHARACTERS

7/4a3. NECESSARY BANDWIDTH OR Fd/G2a. DESIGNATION OF EMISSION [1]	4a2/4c. TOTAL PEAK POWER [1] +/-	dBW	4a1. MAXIMUM POWER DENSITY +/-	dBW/Hz	4d. MINIMUM CARRIER POWER [1] +/-	dBW	Fd/G2b. SPACE/EARTH STATION E.I.R.P. [1] +/-	dBW	8. MODULATION CHARACTERISTICS ATTACHED. SEE ATTACHMENT NO.[1]
24M0G7W	+	28.0	-	43.3					
36M0G7W	+	28.0	-	45.1					
6M00G1W	+	13.3	-	52.0					

F. SPACE STATION CHARACTERISTICS OF TRANSMITTING SPACE STATION FOR SPACE-TO-SPACE RELAYS — ADD/MOD/SUP of the station:

a. SPACE STATION NAME:

G2c. TELECOMMAND INFORMATION [1] ATTACHED. SEE ATTACHED NO.:

EARTH STATION — ADD/MOD/SUP of the station: A

DESIGNATION OF TYPICAL EARTH STATION: Typical 6.1 m

4b1. RADIATION PATTERN (give reference pattern or provide diagram): ITU-RS RR App 29

4b2. ANTENNA RADIATION DIAGRAM ATTACHED SEE FIGURE NO.:

MORE EMISSIONS ON NEXT PAGE: ☐ MORE ASSOC. TRANSMITTING STATIONS ON NEXT PAGE: X

REMARKS: * See Figure No. G2

NOTES ON FILLING IN THIS PAGE:
FOR EACH BEAM FIRST FILL IN THE BOX TITLED "CHARACTERISTICS OF THE BEAM".
FOR EACH EARTH-TO-SPACE SERVICE AREA ASSOCIATED WITH THIS BEAM, FILL IN THE UPPER PORTION OF THE BOX TITLED "INFORMATION TO BE PROVIDED FOR THIS RECEIVING ANTENNA BEAM". FOR EACH SIZE (TYPE) OF TRANSMITTING EARTH STATION ANTENNA, FILL IN THE PORTION OF THE BOX TITLED "INFORMATION RELATED TO THE ASSOCIATED TRANSMITTING STATION(S)". USE ADDITIONAL PAGES AS NECESSARY. IF THIS IS A SPACE-TO-SPACE RELAY, IDENTIFY THE OTHER SPACE STATION(S) IN THE BOX TITLED "SPACE STATION", USING AS MANY PAGES AS NECESSARY.

C. SATELLITE NETWORK CHARACTERISTICS IN THE EARTH-TO-SPACE DIRECTION

SATELLITE RECEIVING ANTENNA BEAM DETAILS — PAGE 4 OF 27

5. CHARACTERISTICS OF THE BEAM

ADD/MOD/SUP of the beam: A

b. RECEIVING BEAM DESIGNATION: K1R

NOTE: For a steerable beam, the third character of the beam designation shall be "R".

OLD BEAM DESIGNATION (if changed):

ANTENNA CHARACTERISTICS

	+/-	dBi
c1/d1/f1. MAXIMUM ISOTROPIC GAIN	+	35.0

g. POLARIZATION [1]:

c2/d2. ANTENNA GAIN CONTOURS DIAGRAM ATTACHED. SEE FIGURE NO.: G2

e/f2. ANTENNA RADIATION PATTERN DIAGRAM ATTACHED. SEE FIGURE NO.:

h. ESTIMATED ANTENNA GAIN DIAGRAM VS ORBIT LONGITUDE ATTACHED. SEE FIGURE NO.: G3

INFORMATION TO BE PROVIDED FOR THIS RECEIVING ANTENNA BEAM

2a. CLASS OF STATION: EC	2b. NATURE OF SERVICE: CP	2a. CLASS OF STATION:	2b. NATURE OF SERVICE:
2a. CLASS OF STATION:	2b. NATURE OF SERVICE:	2a. CLASS OF STATION:	2b. NATURE OF SERVICE:

6. RECEIVING SYSTEM NOISE TEMPERATURE: 800 Kelvins

PERIOD OF VALIDITY: 20 Years

1. SERVICE AREA: *

OR SERVICE AREA ATTACHED SEE FIGURE NO.: G2

3/Fb. FREQUENCY RANGE WITHIN WHICH THE CARRIERS WILL BE LOCATED

	Add/Mod/Sup of the freq. range	FREQUENCY	k/M/G HZ	IFRB IDENTIFICATION NUMBER for modification/suppression
FROM	A	27500.0	M	
TO	A	30000.0	M	

INFORMATION RELATED TO THE ASSOCIATED TRANSMITTING STATION(S)

EMISSIONS AND POWER CHARACTERS

7/4a3. NECESSARY BANDWIDTH OR Fc/G2a. DESIGNATION OF EMISSION [1]	4a2/4c. TOTAL PEAK POWER [1] +/- dBW	4a1. MAXIMUM POWER DENSITY +/- dBW/Hz	4d. MINIMUM CARRIER POWER [1] +/- dBW	Fd/G2b. SPACE/EARTH STATION E.I.R.P. [1] +/- dBW	8. MODULATION CHARACTERISTICS ATTACHED. SEE ATTACHMENT NO.[1]
6M00G1W	+ 20.9	- 44.4			

F. SPACE STATION CHARACTERISTICS OF TRANSMITTING SPACE STATION FOR SPACE-TO-SPACE RELAYS

ADD/MOD/SUP of the station:

a. SPACE STATION NAME:

G2c. TELECOMMAND INFORMATION [1] ATTACHED. SEE ATTACHED NO.:

MORE EMISSIONS ON NEXT PAGE: MORE ASSOC. TRANSMITTING STATIONS ON NEXT PAGE:

EARTH STATION — ADD/MOD/SUP of the station: A

DESIGNATION OF TYPICAL EARTH STATION: Typical 2.4 m

4b1. RADIATION PATTERN (give reference pattern or provide diagram): ITU-RS RR App 29

4b2. ANTENNA RADIATION DIAGRAM ATTACHED SEE FIGURE NO.:

REMARKS: * See Figure No. G2

NOTES ON FILLING IN THIS PAGE:
FOR EACH BEAM FIRST FILL IN THE BOX TITLED "CHARACTERISTICS OF THE BEAM".
FOR EACH EARTH-TO-SPACE SERVICE AREA ASSOCIATED WITH THIS BEAM, FILL IN THE UPPER PORTION OF THE BOX TITLED "INFORMATION TO BE PROVIDED FOR THIS RECEIVING ANTENNA BEAM". FOR EACH SIZE (TYPE) OF TRANSMITTING EARTH STATION ANTENNA, FILL IN THE PORTION OF THE BOX TITLED "INFORMATION RELATED TO THE ASSOCIATED TRANSMITTING STATION(S)". USE ADDITIONAL PAGES AS NECESSARY. IF THIS IS A SPACE-TO-SPACE RELAY, IDENTIFY THE OTHER SPACE STATION(S) IN THE BOX TITLED "SPACE STATION". USING AS MANY PAGES AS NECESSARY.

C. SATELLITE NETWORK CHARACTERISTICS IN THE EARTH-TO-SPACE DIRECTION

SATELLITE RECEIVING ANTENNA BEAM DETAILS — PAGE 5 OF 27

5. CHARACTERISTICS OF THE BEAM

ADD/MOD/SUP of the beam: A

b. RECEIVING BEAM DESIGNATION: IS1

NOTE: For a steerable beam, the third character of the beam designation shall be "R".

OLD BEAM DESIGNATION (if changed):

ANTENNA CHARACTERISTICS

	+/-	dBi
c1/d1/f1. MAXIMUM ISOTROPIC GAIN	+	53.4

g. POLARIZATION [1]:

c2/d2. ANTENNA GAIN CONTOURS DIAGRAM ATTACHED. SEE FIGURE NO.:

e/f2. ANTENNA RADIATION PATTERN DIAGRAM ATTACHED. SEE FIGURE NO.:

h. ESTIMATED ANTENNA GAIN DIAGRAM VS ORBIT LONGITUDE ATTACHED. SEE FIGURE NO.: G6

INFORMATION TO BE PROVIDED FOR THIS RECEIVING ANTENNA BEAM

2a. CLASS OF STATION: ES	2b. NATURE OF SERVICE: CP	2a. CLASS OF STATION:	2b. NATURE OF SERVICE:
2a. CLASS OF STATION:	2b. NATURE OF SERVICE:	2a. CLASS OF STATION:	2b. NATURE OF SERVICE:

6. RECEIVING SYSTEM NOISE TEMPERATURE: 645 Kelvins

PERIOD OF VALIDITY: 20 Years

1. SERVICE AREA:

OR SERVICE AREA ATTACHED SEE FIGURE NO.:

3/Fb. FREQUENCY RANGE WITHIN WHICH THE CARRIERS WILL BE LOCATED

	Add/Mod/Sup of the freq. range	FREQUENCY	k/M/G HZ	IFRB IDENTIFICATION NUMBER for modification/suppression
FROM	A	32000.0	M	
TO	A	33000.0	M	

INFORMATION RELATED TO THE ASSOCIATED TRANSMITTING STATION(S)

EMISSIONS AND POWER CHARACTERS

7/4a3. NECESSARY BANDWIDTH or Fc/G2a. DESIGNATION OF EMISSION [1]	4a2/4c. TOTAL PEAK POWER [1] +/- dBW	4a1. MAXIMUM POWER DENSITY +/- dBW/Hz	4d. MINIMUM CARRIER POWER [1] +/- dBW	Fd/G2b. SPACE/EARTH STATION E.I.R.P. [1] +/- dBW	8. MODULATION CHARACTERISTICS ATTACHED. SEE ATTACHMENT NO.[1]
500MG1W	+ 15.9	- 68.6			

F. SPACE STATION
CHARACTERISTICS OF TRANSMITTING SPACE STATION FOR SPACE-TO-SPACE RELAYS

ADD/MOD/SUP of the station: A

a. SPACE STATION NAME: USASAT 29D

G2c. TELECOMMAND INFORMATION [1] ATTACHED. SEE ATTACHED NO.:

MORE EMISSIONS ON NEXT PAGE

MORE ASSOC. TRANSMITTING STATIONS ON NEXT PAGE

EARTH STATION

ADD/MOD/SUP of the station:

DESIGNATION OF TYPICAL EARTH STATION

4b1. RADIATION PATTERN (give reference pattern or provide diagram)

4b2. ANTENNA RADIATION DIAGRAM ATTACHED SEE FIGURE NO.:

REMARKS

NOTES ON FILLING IN THIS PAGE:
FOR EACH BEAM FIRST FILL IN THE BOX TITLED "CHARACTERISTICS OF THE BEAM".
FOR EACH EARTH-TO-SPACE SERVICE AREA ASSOCIATED WITH THIS BEAM, FILL IN THE UPPER PORTION OF THE BOX TITLED "INFORMATION TO BE PROVIDED FOR THIS RECEIVING ANTENNA BEAM". FOR EACH SIZE (TYPE) OF TRANSMITTING EARTH STATION ANTENNA, FILL IN THE PORTION OF THE BOX TITLED "INFORMATION RELATED TO THE ASSOCIATED TRANSMITTING STATION(S)". USE ADDITIONAL PAGES AS NECESSARY. IF THIS IS A SPACE-TO-SPACE RELAY, IDENTIFY THE OTHER SPACE STATION(S) IN THE BOX TITLED "SPACE STATION", USING AS MANY PAGES AS NECESSARY.

C. SATELLITE NETWORK CHARACTERISTICS IN THE EARTH-TO-SPACE DIRECTION

SATELLITE RECEIVING ANTENNA BEAM DETAILS — PAGE 6 OF 27

5. CHARACTERISTICS OF THE BEAM

ADD/MOD/SUP of the beam: A

b. RECEIVING BEAM DESIGNATION: IS2

NOTE: For a steerable beam, the third character of the beam designation shall be "R".

OLD BEAM DESIGNATION (if changed):

ANTENNA CHARACTERISTICS

	+/-	dBi
c1/d1/f1. MAXIMUM ISOTROPIC GAIN	+	53.4

g. POLARIZATION [1]:

c2/d2. ANTENNA GAIN CONTOURS DIAGRAM ATTACHED. SEE FIGURE NO.:

e/f2. ANTENNA RADIATION PATTERN DIAGRAM ATTACHED. SEE FIGURE NO.:

h. ESTIMATED ANTENNA GAIN DIAGRAM VS ORBIT LONGITUDE ATTACHED. SEE FIGURE NO.: G7

INFORMATION TO BE PROVIDED FOR THIS RECEIVING ANTENNA BEAM

2a. CLASS OF STATION	2b. NATURE OF SERVICE	2a. CLASS OF STATION	2b. NATURE OF SERVICE
ES	CP		

6. RECEIVING SYSTEM NOISE TEMPERATURE: 645 Kelvins

PERIOD OF VALIDITY: 20 Years

1. SERVICE AREA

OR SERVICE AREA ATTACHED SEE FIGURE NO.:

3/Fb. FREQUENCY RANGE WITHIN WHICH THE CARRIERS WILL BE LOCATED

	Add/Mod/Sup of the freq. range	FREQUENCY	k/M/G HZ	IFRB IDENTIFICATION NUMBER for modification/suppression
FROM	A	22550.0	M	
TO	A	23550.0	M	

INFORMATION RELATED TO THE ASSOCIATED TRANSMITTING STATION(S)

EMISSIONS AND POWER CHARACTERS

7/4a3. NECESSARY BANDWIDTH or Fc/G2a. DESIGNATION OF EMISSION [1]	4a2/4c. TOTAL PEAK POWER [1] +/- dBW	4a1. MAXIMUM POWER DENSITY +/- dBW/Hz	4d. MINIMUM CARRIER POWER [1] +/- dBW	Fd/G2b. SPACE/EARTH STATION E.I.R.P. [1] +/- dBW	8. MODULATION CHARACTERISTICS ATTACHED. SEE ATTACHMENT NO.[1]
500MG1W	+ 15.9	- 68.6			

F. SPACE STATION CHARACTERISTICS OF TRANSMITTING SPACE STATION FOR SPACE-TO-SPACE RELAYS

ADD/MOD/SUP of the station: A

a. SPACE STATION NAME: USASAT 29H

G2c. TELECOMMAND INFORMATION [1] ATTACHED. SEE ATTACHED NO.:

MORE EMISSIONS ON NEXT PAGE

MORE ASSOC. TRANSMITTING STATIONS ON NEXT PAGE

EARTH STATION

ADD/MOD/SUP of the station:

DESIGNATION OF TYPICAL EARTH STATION

4b1. RADIATION PATTERN (give reference pattern or provide diagram)

4b2. ANTENNA RADIATION DIAGRAM ATTACHED SEE FIGURE NO.:

REMARKS

NOTES ON FILLING IN THIS PAGE:
FOR EACH BEAM FIRST FILL IN THE BOX TITLED "CHARACTERISTICS OF THE BEAM".
FOR EACH EARTH-TO-SPACE SERVICE AREA ASSOCIATED WITH THIS BEAM, FILL IN THE UPPER PORTION OF THE BOX TITLED "INFORMATION TO BE PROVIDED FOR THIS RECEIVING ANTENNA BEAM". FOR EACH SIZE (TYPE) OF TRANSMITTING EARTH STATION ANTENNA, FILL IN THE PORTION OF THE BOX TITLED "INFORMATION RELATED TO THE ASSOCIATED TRANSMITTING STATION(S)". USE ADDITIONAL PAGES AS NECESSARY. IF THIS IS A SPACE-TO-SPACE RELAY, IDENTIFY THE OTHER SPACE STATION(S) IN THE BOX TITLED "SPACE STATION", USING AS MANY PAGES AS NECESSARY.

C. SATELLITE NETWORK CHARACTERISTICS IN THE EARTH-TO-SPACE DIRECTION

SATELLITE RECEIVING ANTENNA BEAM DETAILS

5. CHARACTERISTICS OF THE BEAM

ADD/MOD/SUP of the beam: A

b. RECEIVING BEAM DESIGNATION: IS3

NOTE: For a steerable beam, the third character of the beam designation shall be "R".

OLD BEAM DESIGNATION (if changed):

ANTENNA CHARACTERISTICS

	+/-	dBi
c1/d1/f1. MAXIMUM ISOTROPIC GAIN	+	55.7

g. POLARIZATION [1]:

e/f2. ANTENNA RADIATION PATTERN DIAGRAM ATTACHED. SEE FIGURE NO.:

c2/d2. ANTENNA GAIN CONTOURS DIAGRAM ATTACHED. SEE FIGURE NO.:

h. ESTIMATED ANTENNA GAIN DIAGRAM VS ORBIT LONGITUDE ATTACHED. SEE FIGURE NO.: G8

INFORMATION TO BE PROVIDED FOR THIS RECEIVING ANTENNA BEAM

2a. CLASS OF STATION: ES	2b. NATURE OF SERVICE: CP	2a. CLASS OF STATION:	2b. NATURE OF SERVICE:
2a. CLASS OF STATION:	2b. NATURE OF SERVICE:	2a. CLASS OF STATION:	2b. NATURE OF SERVICE:

6. RECEIVING SYSTEM NOISE TEMPERATURE: 645 Kelvins

PERIOD OF VALIDITY: 20 Years

1. SERVICE AREA:

OR SERVICE AREA ATTACHED SEE FIGURE NO.:

3/Fb. FREQUENCY RANGE WITHIN WHICH THE CARRIERS WILL BE LOCATED

	Add/Mod/Sup of the freq. range	FREQUENCY	k/M/G HZ	IFRB IDENTIFICATION NUMBER for modification/suppression
FROM	A	59000.0	M	
TO	A	64000.0	M	

INFORMATION RELATED TO THE ASSOCIATED TRANSMITTING STATION(S)

EMISSIONS AND POWER CHARACTERS

7/4a3. NECESSARY BANDWIDTH Fc/G2a. DESIGNATION OF EMISSION [1]	4a2/4c. TOTAL PEAK POWER [1] +/- dBW	4a1. MAXIMUM POWER DENSITY +/- dBW/Hz	4d. MINIMUM CARRIER POWER [1] +/- dBW	Fd/G2b. SPACE/EARTH STATION E.I.R.P. [1] +/- dBW	8. MODULATION CHARACTERISTICS ATTACHED. SEE ATTACHMENT NO. [1]
500MG1W	+ 18.7	- 65.8			

F. SPACE STATION CHARACTERISTICS OF TRANSMITTING SPACE STATION FOR SPACE-TO-SPACE RELAYS

ADD/MOD/SUP of the station: A

a. SPACE STATION NAME: USASAT 29D

G2c. TELECOMMAND INFORMATION [1] ATTACHED. SEE ATTACHED NO.:

MORE EMISSIONS ON NEXT PAGE

MORE ASSOC. TRANSMITTING STATIONS ON NEXT PAGE

EARTH STATION

ADD/MOD/SUP of the station:

DESIGNATION OF TYPICAL EARTH STATION

4b1. RADIATION PATTERN (give reference pattern or provide diagram)

4b2. ANTENNA RADIATION DIAGRAM ATTACHED SEE FIGURE NO.:

REMARKS

NOTES ON FILLING IN THIS PAGE:
FOR EACH BEAM FIRST FILL IN THE BOX TITLED "CHARACTERISTICS OF THE BEAM".
FOR EACH EARTH-TO-SPACE SERVICE AREA ASSOCIATED WITH THIS BEAM, FILL IN THE UPPER PORTION OF THE BOX TITLED "INFORMATION TO BE PROVIDED FOR THIS RECEIVING ANTENNA BEAM". FOR EACH SIZE (TYPE) OF TRANSMITTING EARTH STATION ANTENNA, FILL IN THE PORTION OF THE BOX TITLED "INFORMATION RELATED TO THE ASSOCIATED TRANSMITTING STATION(S)". USE ADDITIONAL PAGES AS NECESSARY. IF THIS IS A SPACE-TO-SPACE RELAY, IDENTIFY THE OTHER SPACE STATION(S) IN THE BOX TITLED "SPACE STATION". USING AS MANY PAGES AS NECESSARY.

C. SATELLITE NETWORK CHARACTERISTICS IN THE EARTH-TO-SPACE DIRECTION

SATELLITE RECEIVING ANTENNA BEAM DETAILS

5. CHARACTERISTICS OF THE BEAM

ADD/MOD/SUP of the beam: A

b. RECEIVING BEAM DESIGNATION: IS4

NOTE: For a steerable beam, the third character of the beam designation shall be "R".

OLD BEAM DESIGNATION (if changed):

ANTENNA CHARACTERISTICS

	+/-	dBi
c1/d1/f1. MAXIMUM ISOTROPIC GAIN	+	55.7

g. POLARIZATION [1]:

c2/d2. ANTENNA GAIN CONTOURS DIAGRAM ATTACHED. SEE FIGURE NO.:

e/f2. ANTENNA RADIATION PATTERN DIAGRAM ATTACHED. SEE FIGURE NO.:

h. ESTIMATED ANTENNA GAIN DIAGRAM VS ORBIT LONGITUDE ATTACHED. SEE FIGURE NO.: G9

INFORMATION TO BE PROVIDED FOR THIS RECEIVING ANTENNA BEAM

2a. CLASS OF STATION	2b. NATURE OF SERVICE	2a. CLASS OF STATION	2b. NATURE OF SERVICE
ES	CP		

6. RECEIVING SYSTEM NOISE TEMPERATURE: 645 Kelvins

PERIOD OF VALIDITY: 20 Years

1. SERVICE AREA

OR SERVICE AREA ATTACHED SEE FIGURE NO.:

3/Fb. FREQUENCY RANGE WITHIN WHICH THE CARRIERS WILL BE LOCATED

	Add/Mod/Sup of the freq. range	FREQUENCY	k/M/G HZ	IFRB IDENTIFICATION NUMBER for modification/suppression
FROM	A	54250.0	M	
TO	A	58200.0	M	

INFORMATION RELATED TO THE ASSOCIATED TRANSMITTING STATION(S)

EMISSIONS AND POWER CHARACTERS

7/4a3. NECESSARY BANDWIDTH OR Fc/G2a. DESIGNATION OF EMISSION [1]	4a2/4c. TOTAL PEAK POWER [1] +/- dBW	4a1. MAXIMUM POWER DENSITY +/- dBW/Hz	4d. MINIMUM CARRIER POWER [1] +/- dBW	Fd/G2b. SPACE/EARTH STATION E.I.R.P. [1] +/- dBW	8. MODULATION CHARACTERISTICS ATTACHED. SEE ATTACHMENT NO.[1]
500MG1W	+ 18.7	- 65.8			

F. SPACE STATION CHARACTERISTICS OF TRANSMITTING SPACE STATION FOR SPACE-TO-SPACE RELAYS

ADD/MOD/SUP of the station: A

a. SPACE STATION NAME: USASAT 29H

G2c. TELECOMMAND INFORMATION [1] ATTACHED. SEE ATTACHED NO.:

MORE EMISSIONS ON NEXT PAGE

MORE ASSOC. TRANSMITTING STATIONS ON NEXT PAGE

EARTH STATION

ADD/MOD/SUP of the station:

DESIGNATION OF TYPICAL EARTH STATION

4b1. RADIATION PATTERN (give reference pattern or provide diagram)

4b2. ANTENNA RADIATION DIAGRAM ATTACHED SEE FIGURE NO.:

REMARKS

NOTES ON FILLING IN THIS PAGE:
FOR EACH BEAM FIRST FILL IN THE BOX TITLED "CHARACTERISTICS OF THE BEAM".
FOR EACH EARTH-TO-SPACE SERVICE AREA ASSOCIATED WITH THIS BEAM, FILL IN THE UPPER PORTION OF THE BOX TITLED "INFORMATION TO BE PROVIDED FOR THIS RECEIVING ANTENNA BEAM". FOR EACH SIZE (TYPE) OF TRANSMITTING EARTH STATION ANTENNA, FILL IN THE PORTION OF THE BOX TITLED "INFORMATION RELATED TO THE ASSOCIATED TRANSMITTING STATION(S)". USE ADDITIONAL PAGES AS NECESSARY. IF THIS IS A SPACE-TO-SPACE RELAY, IDENTIFY THE OTHER SPACE STATION(S) IN THE BOX TITLED "SPACE STATION". USING AS MANY PAGES AS NECESSARY.

D. SATELLITE NETWORK CHARACTERISTICS IN THE SPACE-TO-EARTH DIRECTION

SATELLITE TRANSMITTING ANTENNA BEAM DETAILS

5. CHARACTERISTICS OF THE BEAM

ADD/MOD/SUP of the beam: A

b. TRANSMITTING BEAM DESIGNATION: K1R

NOTE: For a steerable beam, the third character of the beam designation shall be "R".

OLD BEAM DESIGNATION (if changed):

ANTENNA CHARACTERISTICS

	+/-	dBi
c1/d1/f1. MAXIMUM ISOTROPIC GAIN	+	35.0

g. POLARIZATION [1]:

c2/d2. ANTENNA GAIN CONTOURS DIAGRAM ATTACHED. SEE FIGURE NO.: G2

e/f2. ANTENNA RADIATION PATTERN DIAGRAM ATTACHED. SEE FIGURE NO.:

h. ESTIMATED ANTENNA GAIN DIAGRAM VS ORBIT LONGITUDE ATTACHED. SEE FIGURE NO.: G3

INFORMATION TO BE PROVIDED FOR THIS TRANSMITTING ANTENNA BEAM

2a. CLASS OF STATION: EC; 2b. NATURE OF SERVICE: CP	2a. CLASS OF STATION: ; 2b. NATURE OF SERVICE:
2a. CLASS OF STATION: ; 2b. NATURE OF SERVICE:	2a. CLASS OF STATION: ; 2b. NATURE OF SERVICE:

PERIOD OF VALIDITY: 20 Years

1. SERVICE AREA: *

OR SERVICE AREA ATTACHED SEE FIGURE NO.: G2

3/Fb. FREQENCY RANGE WITHIN WHICH THE CARRIERS WILL BE LOCATED

	Add/Mod/Sup of the freq. range	FREQUENCY	k/M/G HZ	IFRB IDENTIFICATION NUMBER for modification/suppression
FROM	A	17700.0	M	
TO	A	20200.0	M	

SPACE STATION EMISSIONS AND ASSOCIATED RECEIVING STATION(S) INFORMATION

EMISSIONS AND POWER CHARACTERS

6/4a3. NECESSARY BANDWIDTH OR Fc/G3a. DESIGNATION OF EMISSION [1]	4a2/4b. TOTAL PEAK POWER [1] +/- dBW	4a1/G3b. MAXIMUM POWER DENSITY +/- dBW/Hz	4C. MINIMUM CARRIER POWER [1] +/- dBW	Fd. SPACE/EARTH STATION E.I.R.P. [1] +/- dBW	7. MODULATION CHARACTERISTICS ATTACHED. SEE ATTACHMENT NO. [1]
24M0F3F	+ 23.0	- 47.3			

F. SPACE STATION CHARACTERISTICS OF RECEIVING SPACE STATION FOR SPACE-TO-SPACE RELAYS

ADD/MOD/SUP of the station:

a. SPACE STATION NAME:

G3c. BEACON AND TELEMETRY INFORMATION ATTACHED. [1] SEE ATTACHED NO.:

MORE EMISSIONS ON NEXT PAGE:

MORE ASSOC. RECEIVING STATIONS ON NEXT PAGE: X

EARTH STATION

ADD/MOD/SUP of the station: A

TYPE OF TYPICAL EARTH STATION: Typical 5.0 m

8b1. RADIATION PATTERN (give reference pattern or provide diagram): ITU-RS RR App 29

8b2. ANTENNA RADIATION DIAGRAM ATTACHED SEE FIGURE NO.:

8a. RECEIVING SYSTEM NOISE TEMPERATURE Kelvins: 125

REMARKS: * See Figure No. G2

NOTES ON FILLING IN THIS PAGE:
FOR EACH BEAM FIRST FILL IN THE BOX TITLED "CHARACTERISTICS OF THE BEAM".
FOR EACH SPACE-TO-EARTH SERVICE AREA ASSOCIATED WITH THIS BEAM, FILL IN THE UPPER PORTION OF THE BOX TITLED "INFORMATION TO BE PROVIDED FOR THIS TRANSMITTING ANTENNA BEAM"; ALSO PROVIDE THE "EMISSION AND POWER CHARACTERISTICS" FOR THIS TRANSMITTING ANTENNA BEAM. FOR EACH SIZE (TYPE) OF RECEIVING EARTH STATION PROVIDE THE EARTH STATION DETAILS AS SPECIFIED. IF THIS IS A SPACE-TO-SPACE RELAY, IDENTIFY THE OTHER SPACE STATION(S) IN THE BOX TITLED "SPACE STATION". USE AS MANY PAGES AS NECESSARY.

D. SATELLITE NETWORK CHARACTERISTICS IN THE SPACE-TO-EARTH DIRECTION

SATELLITE TRANSMITTING ANTENNA BEAM DETAILS

5. CHARACTERISTICS OF THE BEAM

ADD/MOD/SUP of the beam: A

b. TRANSMITTING BEAM DESIGNATION: K1R

NOTE: For a steerable beam, the third character of the beam designation shall be "R".

OLD BEAM DESIGNATION (if changed):

ANTENNA CHARACTERISTICS

	+/-	dBi
c1/d1/f1. MAXIMUM ISOTROPIC GAIN	+	35.0

g. POLARIZATION [1]:

c2/d2. ANTENNA GAIN CONTOURS DIAGRAM ATTACHED. SEE FIGURE NO.: G2

e/f2. ANTENNA RADIATION PATTERN DIAGRAM ATTACHED. SEE FIGURE NO.:

h. ESTIMATED ANTENNA GAIN DIAGRAM VS ORBIT LONGITUDE ATTACHED. SEE FIGURE NO.: G3

INFORMATION TO BE PROVIDED FOR THIS TRANSMITTING ANTENNA BEAM

2a. CLASS OF STATION: EC; 2b. NATURE OF SERVICE: CP		2a. CLASS OF STATION: ; 2b. NATURE OF SERVICE:	
2a. CLASS OF STATION: ; 2b. NATURE OF SERVICE:		2a. CLASS OF STATION: ; 2b. NATURE OF SERVICE:	

PERIOD OF VALIDITY: 20 Years

1. SERVICE AREA: *

OR SERVICE AREA ATTACHED SEE FIGURE NO.: G2

3/Fb. FREQENCY RANGE WITHIN WHICH THE CARRIERS WILL BE LOCATED

	Add/Mod/Sup of the freq. range	FREQUENCY	k/M/G HZ	IFRB IDENTIFICATION NUMBER for modification/suppression
FROM	A	17700.0	M	
TO	A	20200.0	M	

SPACE STATION EMISSIONS AND ASSOCIATED RECEIVING STATION(S) INFORMATION

EMISSIONS AND POWER CHARACTERS

4/4a3. NECESSARY BANDWIDTH OR Fc/G3a. DESIGNATION OF EMISSION [1]	4a2/4b. TOTAL PEAK POWER [1] +/-	dBW	4a1/G3b. MAXIMUM POWER DENSITY +/-	dBW/Hz	4C. MINIMUM CARRIER POWER [1] +/-	dBW	Fd. SPACE/EARTH STATION E.I.R.P. [1] +/-	dBW	7. MODULATION CHARACTERISTICS ATTACHED. SEE ATTACHMENT NO. [1]
24M0G7W	+	23.0	-	48.3					
36M0G7W	+	23.0	-	50.1					

F. SPACE STATION CHARACTERISTICS OF RECEIVING SPACE STATION FOR SPACE-TO-SPACE RELAYS

ADD/MOD/SUP of the station:

a. SPACE STATION NAME:

G3c. BEACON AND TELEMETRY INFORMATION ATTACHED [1] SEE ATTACHED NO.:

MORE EMISSIONS ON NEXT PAGE:

MORE ASSOC. RECEIVING STATIONS ON NEXT PAGE: X

EARTH STATION

ADD/MOD/SUP of the station: A

TYPE OF TYPICAL EARTH STATION: Typical 3.0 m

8b1. RADIATION PATTERN (give reference pattern or provide diagram): ITU-RS RR App 29

8b2. ANTENNA RADIATION DIAGRAM ATTACHED SEE FIGURE NO.:

8a. RECEIVING SYSTEM NOISE TEMPERATURE Kelvins: 125

REMARKS: * See Figure No. G2

NOTES ON FILLING IN THIS PAGE:
FOR EACH BEAM FIRST FILL IN THE BOX TITLED "CHARACTERISTICS OF THE BEAM".
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D. SATELLITE NETWORK CHARACTERISTICS IN THE SPACE-TO-EARTH DIRECTION

SATELLITE TRANSMITTING ANTENNA BEAM DETAILS

5. CHARACTERISTICS OF THE BEAM

ADD/MOD/SUP of the beam: A

b. TRANSMITTING BEAM DESIGNATION: K1R

NOTE: For a steerable beam, the third character of the beam designation shall be "R".

OLD BEAM DESIGNATION (if changed):

ANTENNA CHARACTERISTICS

	+/-	dBi
c1/d1/f1. MAXIMUM ISOTROPIC GAIN	+	35.0

g. POLARIZATION [1]:

c2/d2. ANTENNA GAIN CONTOURS DIAGRAM ATTACHED. SEE FIGURE NO.: G2

e/f2. ANTENNA RADIATION PATTERN DIAGRAM ATTACHED. SEE FIGURE NO.:

h. ESTIMATED ANTENNA GAIN DIAGRAM VS ORBIT LONGITUDE ATTACHED. SEE FIGURE NO.: G3

INFORMATION TO BE PROVIDED FOR THIS TRANSMITTING ANTENNA BEAM

2a. CLASS OF STATION: EC	2b. NATURE OF SERVICE: CP	2a. CLASS OF STATION:	2b. NATURE OF SERVICE:
2a. CLASS OF STATION:	2b. NATURE OF SERVICE:	2a. CLASS OF STATION:	2b. NATURE OF SERVICE:

PERIOD OF VALIDITY: 20 Years

1. SERVICE AREA: *

OR SERVICE AREA ATTACHED SEE FIGURE NO.: G2

3/Fb. FREQENCY RANGE WITHIN WHICH THE CARRIERS WILL BE LOCATED

	Add/Mod/Sup of the freq. range	FREQUENCY	k/M/G HZ	IFRB IDENTIFICATION NUMBER for modification/suppression
FROM	A	17700.0	M	
TO	A	20200.0	M	

SPACE STATION EMISSIONS AND ASSOCIATED RECEIVING STATION(S) INFORMATION

6/4a3. NECESSARY BANDWIDTH OR Fc/G3a. DESIGNATION OF EMISSION [1]	4a2/4b. TOTAL PEAK POWER [1] +/-	dBW	4a1/G3b. MAXIMUM POWER DENSITY +/-	dBW/Hz	4C. MINIMUM CARRIER POWER [1] +/-	dBW	Fd. SPACE/EARTH STATION E.I.R.P. [1] +/-	dBW	7. MODULATION CHARACTERISTICS ATTACHED. SEE ATTACHMENT NO.[1]
6M00G1W	+	17.0	-	48.3					

F. SPACE STATION CHARACTERISTICS OF RECEIVING SPACE STATION FOR SPACE-TO-SPACE RELAYS

ADD/MOD/SUP of the station:

a. SPACE STATION NAME:

G3c. BEACON AND TELEMETRY INFORMATION ATTACHED. [1] SEE ATTACHED NO.:

MORE EMISSIONS ON NEXT PAGE:

MORE ASSOC. RECEIVING STATIONS ON NEXT PAGE: X

EARTH STATION

ADD/MOD/SUP of the station: A

TYPE OF TYPICAL EARTH STATION: Typical 1.2 m

8b1. RADIATION PATTERN (give reference pattern or provide diagram): ITU-RS RR App 29

8b2. ANTENNA RADIATION DIAGRAM ATTACHED SEE FIGURE NO.:

8a. RECEIVING SYSTEM NOISE TEMPERATURE Kelvins: 125

REMARKS: * See Figure No. G2

NOTES ON FILLING IN THIS PAGE:
FOR EACH BEAM FIRST FILL IN THE BOX TITLED "CHARACTERISTICS OF THE BEAM".
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D. SATELLITE NETWORK CHARACTERISTICS IN THE SPACE-TO-EARTH DIRECTION

SATELLITE TRANSMITTING ANTENNA BEAM DETAILS

5. CHARACTERISTICS OF THE BEAM

ADD/MOD/SUP of the beam: A

b. TRANSMITTING BEAM DESIGNATION: K1R

NOTE: For a steerable beam, the third character of the beam designation shall be "R".

OLD BEAM DESIGNATION (if changed):

ANTENNA CHARACTERISTICS

	+/-i	dBi
c1/d1/f1. MAXIMUM ISOTROPIC GAIN	+	35.0

g. POLARIZATION [1]:

c2/d2. ANTENNA GAIN CONTOURS DIAGRAM ATTACHED. SEE FIGURE NO.: G2

e/f2. ANTENNA RADIATION PATTERN DIAGRAM ATTACHED. SEE FIGURE NO.:

h. ESTIMATED ANTENNA GAIN DIAGRAM VS ORBIT LONGITUDE ATTACHED. SEE FIGURE NO.: G3

INFORMATION TO BE PROVIDED FOR THIS TRANSMITTING ANTENNA BEAM

2a. CLASS OF STATION: EC	2b. NATURE OF SERVICE: CP	2a. CLASS OF STATION:	2b. NATURE OF SERVICE:
2a. CLASS OF STATION:	2b. NATURE OF SERVICE:	2a. CLASS OF STATION:	2b. NATURE OF SERVICE:

PERIOD OF VALIDITY: 20 Years

1. SERVICE AREA: *

OR SERVICE AREA ATTACHED SEE FIGURE NO.: G2

3/Fb. FREQENCY RANGE WITHIN WHICH THE CARRIERS WILL BE LOCATED

	Add/Mod/Sup of the freq. range	FREQUENCY	k/M/G HZ	IFRB IDENTIFICATION NUMBER for modification/suppression
FROM	A	17700.0	M	
TO	A	20200.0	M	

SPACE STATION EMISSIONS AND ASSOCIATED RECEIVING STATION(S) INFORMATION

EMISSIONS AND POWER CHARACTERS

6/4a3. NECESSARY BANDWIDTH OR Fc/G3a. DESIGNATION OF EMISSION [1]	4a2/4b. TOTAL PEAK POWER [1] +/-	dBW	4a1/G3b. MAXIMUM POWER DENSITY +/-	dBW/Hz	4C. MINIMUM CARRIER POWER [1] +/-	dBW	Fd. SPACE/EARTH STATION E.I.R.P. [1] +/-	dBW	7. MODULATION CHARACTERISTICS ATTACHED. SEE ATTACHMENT NO. [1]
6M00G1W	+	16.0	-	49.3					

F. SPACE STATION
CHARACTERISTICS OF RECEIVING SPACE STATION FOR SPACE-TO-SPACE RELAYS

ADD/MOD/SUP of the station:

a. SPACE STATION NAME:

G3c. BEACON AND TELEMETRY INFORMATION ATTACHED. [1] SEE ATTACHED NO.:

MORE EMISSIONS ON NEXT PAGE: MORE ASSOC. RECEIVING STATIONS ON NEXT PAGE:

EARTH STATION

ADD/MOD/SUP of the station: A

TYPE OF TYPICAL EARTH STATION: Typical 6.1 m

8b1. RADIATION PATTERN (give reference pattern or provide diagram): ITU-RS RR App 29

8b2. ANTENNA RADIATION DIAGRAM ATTACHED SEE FIGURE NO.:

8a. RECEIVING SYSTEM NOISE TEMPERATURE Kelvins: 125

REMARKS: * See Figure No. G2

NOTES ON FILLING IN THIS PAGE:
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D. SATELLITE NETWORK CHARACTERISTICS IN THE SPACE-TO-EARTH DIRECTION

SATELLITE TRANSMITTING ANTENNA BEAM DETAILS

5. CHARACTERISTICS OF THE BEAM

ADD/MOD/SUP of the beam: A

b. TRANSMITTING BEAM DESIGNATION: PCB

NOTE: For a steerable beam, the third character of the beam designation shall be "R".

OLD BEAM DESIGNATION (if changed):

ANTENNA CHARACTERISTICS

	+/-	dBi
c1/d1/f1. MAXIMUM ISOTROPIC GAIN	+	21.6

g. POLARIZATION:

c2/d2. ANTENNA GAIN CONTOURS DIAGRAM ATTACHED. SEE FIGURE NO.: G5

e/f2. ANTENNA RADIATION PATTERN DIAGRAM ATTACHED. SEE FIGURE NO.:

h. ESTIMATED ANTENNA GAIN DIAGRAM VS ORBIT LONGITUDE ATTACHED. SEE FIGURE NO.: G6

INFORMATION TO BE PROVIDED FOR THIS TRANSMITTING ANTENNA BEAM

2a. CLASS OF STATION: ER	2b. NATURE OF SERVICE: CP	2a. CLASS OF STATION:	2b. NATURE OF SERVICE:
2a. CLASS OF STATION:	2b. NATURE OF SERVICE:	2a. CLASS OF STATION:	2b. NATURE OF SERVICE:

PERIOD OF VALIDITY: 20 Years

1. SERVICE AREA: *

OR SERVICE AREA ATTACHED SEE FIGURE NO.: G5

3/Fb. FREQENCY RANGE WITHIN WHICH THE CARRIERS WILL BE LOCATED

	Add/Mod/Sup of the freq. range	FREQUENCY	k/M/G HZ	IFRB IDENTIFICATION NUMBER for modification/suppression
FROM	A	27500.0	M	
TO	A	27501.0	M	

SPACE STATION EMISSIONS AND ASSOCIATED RECEIVING STATION(S) INFORMATION

EMISSIONS AND POWER CHARACTERS

6/4a3. NECESSARY BANDWIDTH OR Fc/G3a. DESIGNATION OF EMISSION	4a2/4b. TOTAL PEAK POWER +/-	4a2/4b. TOTAL PEAK POWER dBW	4a1/G3b. MAXIMUM POWER DENSITY +/-	4a1/G3b. MAXIMUM POWER DENSITY dBW/Hz	4C. MINIMUM CARRIER POWER +/-	4C. MINIMUM CARRIER POWER dBW	Fd. SPACE/EARTH STATION E.I.R.P. +/-	Fd. SPACE/EARTH STATION E.I.R.P. dBW	7. MODULATION CHARACTERISTICS ATTACHED. SEE ATTACHMENT NO.
1M00G2D	-	1.6	-	59.1					

F. SPACE STATION CHARACTERISTICS OF RECEIVING SPACE STATION FOR SPACE-TO-SPACE RELAYS

ADD/MOD/SUP of the station:

a. SPACE STATION NAME:

G3c. BEACON AND TELEMETRY INFORMATION ATTACHED SEE ATTACHED NO.:

MORE EMISSIONS ON NEXT PAGE:

MORE ASSOC. RECEIVING STATIONS ON NEXT PAGE:

EARTH STATION

ADD/MOD/SUP of the station: A

TYPE OF TYPICAL EARTH STATION: Typical 10M

8b1. RADIATION PATTERN (give reference pattern or provide diagram): ITU-RS RR App 29

8b2. ANTENNA RADIATION DIAGRAM ATTACHED SEE FIGURE NO.:

8a. RECEIVING SYSTEM NOISE TEMPERATURE Kelvins: 120

REMARKS: * See Figure No. G5

NOTES ON FILLING IN THIS PAGE:

FOR EACH BEAM FIRST FILL IN THE BOX TITLED "CHARACTERISTICS OF THE BEAM".

FOR EACH SPACE-TO-EARTH SERVICE AREA ASSOCIATED WITH THIS BEAM, FILL IN THE UPPER PORTION OF THE BOX TITLED "INFORMATION TO BE PROVIDED FOR THIS TRANSMITTING ANTENNA BEAM", ALSO PROVIDE THE "EMISSION AND POWER CHARACTERISTICS" FOR THIS TRANSMITTING ANTENNA BEAM. FOR EACH SIZE (TYPE) OF RECEIVING EARTH STATION PROVIDE THE EARTH STATION DETAILS AS SPECIFIED. IF THIS IS A SPACE-TO-SPACE RELAY, IDENTIFY THE OTHER SPACE STATION(S) IN THE BOX TITLED "SPACE STATION". USE AS MANY PAGES AS NECESSARY.

D. SATELLITE NETWORK CHARACTERISTICS IN THE SPACE-TO-EARTH DIRECTION

SATELLITE TRANSMITTING ANTENNA BEAM DETAILS

5. CHARACTERISTICS OF THE BEAM

ADD/MOD/SUP of the beam: A

b. TRANSMITTING BEAM DESIGNATION: PCB

NOTE: For a steerable beam, the third character of the beam designation shall be "R".

OLD BEAM DESIGNATION (if changed):

ANTENNA CHARACTERISTICS

	+/-	dBi
c1/d1/f1. MAXIMUM ISOTROPIC GAIN	+	21.6

g. POLARIZATION [1]:

c2/d2. ANTENNA GAIN CONTOURS DIAGRAM ATTACHED. SEE FIGURE NO.: G5

e/f2. ANTENNA RADIATION PATTERN DIAGRAM ATTACHED. SEE FIGURE NO.:

h. ESTIMATED ANTENNA GAIN DIAGRAM VS ORBIT LONGITUDE ATTACHED. SEE FIGURE NO.: G6

INFORMATION TO BE PROVIDED FOR THIS TRANSMITTING ANTENNA BEAM

2a. CLASS OF STATION	2b. NATURE OF SERVICE	2a. CLASS OF STATION	2b. NATURE OF SERVICE
ER	CP		

PERIOD OF VALIDITY: 20 Years

1. SERVICE AREA: *

OR SERVICE AREA ATTACHED SEE FIGURE NO.: G5

3/Fb. FREQENCY RANGE WITHIN WHICH THE CARRIERS WILL BE LOCATED

	Add/Mod/Sup of the freq. range	FREQUENCY	k/M/G HZ	IFRB IDENTIFICATION NUMBER for modification/suppression
FROM	A	29999.0	M	
TO	A	30000.0	M	

SPACE STATION EMISSIONS AND ASSOCIATED RECEIVING STATION(S) INFORMATION

EMISSIONS AND POWER CHARACTERS

6/4a3. NECESSARY BANDWIDTH OR Fc/G3a. DESIGNATION OF EMISSION [1]	4a2/4b. TOTAL PEAK POWER [1] +/- dBW	4a1/G3b. MAXIMUM POWER DENSITY +/- dBW/Hz	4C. MINIMUM CARRIER POWER [1] +/- dBW	Fd. SPACE/EARTH STATION E.I.R.P. [1] +/- dBW	7. MODULATION CHARACTERISTICS ATTACHED. SEE ATTACHMENT NO. [1]
1M00G2D	- 1.6	- 59.1			

F. SPACE STATION CHARACTERISTICS OF RECEIVING SPACE STATION FOR SPACE-TO-SPACE RELAYS

ADD/MOD/SUP of the station:

a. SPACE STATION NAME:

G3c. BEACON AND TELEMETRY INFORMATION ATTACHED [1] SEE ATTACHED NO.:

EARTH STATION

ADD/MOD/SUP of the station: A

TYPE OF TYPICAL EARTH STATION: Typical 10M

8b1. RADIATION PATTERN (give reference pattern or provide diagram): ITU-RS RR App 29

8b2. ANTENNA RADIATION DIAGRAM ATTACHED SEE FIGURE NO.:

8a. RECEIVING SYSTEM NOISE TEMPERATURE (Kelvins): 120

MORE EMISSIONS ON NEXT PAGE

MORE ASSOC. RECEIVING STATIONS ON NEXT PAGE

REMARKS: * See Figure No. G5

NOTES ON FILLING IN THIS PAGE.

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D. SATELLITE NETWORK CHARACTERISTICS IN THE SPACE-TO-EARTH DIRECTION

SATELLITE TRANSMITTING ANTENNA BEAM DETAILS

5. CHARACTERISTICS OF THE BEAM

ADD/MOD/SUP of the beam: A

b. TRANSMITTING BEAM DESIGNATION: IS1

NOTE: For a steerable beam, the third character of the beam designation shall be "R".

OLD BEAM DESIGNATION (if changed):

ANTENNA CHARACTERISTICS

	+/-	dBi
c1/d1/f1. MAXIMUM ISOTROPIC GAIN	+	53.4

g. POLARIZATION [1]:

c2/d2. ANTENNA GAIN CONTOURS DIAGRAM ATTACHED. SEE FIGURE NO.:

e/f2. ANTENNA RADIATION PATTERN DIAGRAM ATTACHED. SEE FIGURE NO.:

h. ESTIMATED ANTENNA GAIN DIAGRAM VS ORBIT LONGITUDE ATTACHED. SEE FIGURE NO.: G6

INFORMATION TO BE PROVIDED FOR THIS TRANSMITTING ANTENNA BEAM

2a. CLASS OF STATION	2b. NATURE OF SERVICE	2a. CLASS OF STATION	2b. NATURE OF SERVICE
ES	CP		

PERIOD OF VALIDITY: 20 Years

1. SERVICE AREA:

OR SERVICE AREA ATTACHED SEE FIGURE NO.:

3/Fb. FREQENCY RANGE WITHIN WHICH THE CARRIERS WILL BE LOCATED

	Add/Mod/Sup of the freq. range	FREQUENCY	k/M/G HZ	IFRB IDENTIFICATION NUMBER for modification/suppression
FROM	A	32000.0	M	
TO	A	33000.0	M	

SPACE STATION EMISSIONS AND ASSOCIATED RECEIVING STATION(S) INFORMATION

EMISSIONS AND POWER CHARACTERS

6/4a3. NECESSARY BANDWIDTH OR Fc/G3a. DESIGNATION OF EMISSION [1]	4a2/4b. TOTAL PEAK POWER [1] +/- dBW	4a1/G3b. MAXIMUM POWER DENSITY +/- dBW/Hz	4C. MINIMUM CARRIER POWER [1] +/- dBW	Fd. SPACE/EARTH STATION E.I.R.P. [1] +/- dBW	7. MODULATION CHARACTERISTICS ATTACHED. SEE ATTACHMENT NO. [1]
500MG1W	+ 15.9	- 68.6			

F. SPACE STATION CHARACTERISTICS OF RECEIVING SPACE STATION FOR SPACE-TO-SPACE RELAYS

ADD/MOD/SUP of the station: A

a. SPACE STATION NAME: USASAT29H

G3c. BEACON AND TELEMETRY INFORMATION ATTACHED [1] SEE ATTACHED NO.:

MORE EMISSIONS ON NEXT PAGE:

MORE ASSOC. RECEIVING STATIONS ON NEXT PAGE:

EARTH STATION

ADD/MOD/SUP of the station:

TYPE OF TYPICAL EARTH STATION:

8b1. RADIATION PATTERN (give reference pattern or provide diagram):

8b2. ANTENNA RADIATION DIAGRAM ATTACHED SEE FIGURE NO.:

8a. RECEIVING SYSTEM NOISE TEMPERATURE Kelvins:

REMARKS:

NOTES ON FILLING IN THIS PAGE:

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D. SATELLITE NETWORK CHARACTERISTICS IN THE SPACE-TO-EARTH DIRECTION

SATELLITE TRANSMITTING ANTENNA BEAM DETAILS

5. CHARACTERISTICS OF THE BEAM

ADD/MOD/SUP of the beam: A

b. TRANSMITTING BEAM DESIGNATION: IS2

NOTE: For a steerable beam, the third character of the beam designation shall be "R".

OLD BEAM DESIGNATION (if changed):

ANTENNA CHARACTERISTICS

	+/-	dBi
c1/d1/f1. MAXIMUM ISOTROPIC GAIN	+	53.4

g. POLARIZATION [1]:

c2/d2. ANTENNA GAIN CONTOURS DIAGRAM ATTACHED. SEE FIGURE NO.:

e/f2. ANTENNA RADIATION PATTERN DIAGRAM ATTACHED. SEE FIGURE NO.:

h. ESTIMATED ANTENNA GAIN DIAGRAM VS ORBIT LONGITUDE ATTACHED. SEE FIGURE NO.: G7

INFORMATION TO BE PROVIDED FOR THIS TRANSMITTING ANTENNA BEAM

2a. CLASS OF STATION: ES	2b. NATURE OF SERVICE: CP	2a. CLASS OF STATION:	2b. NATURE OF SERVICE:
2a. CLASS OF STATION:	2b. NATURE OF SERVICE:	2a. CLASS OF STATION:	2b. NATURE OF SERVICE:

PERIOD OF VALIDITY: 20 Years

1. SERVICE AREA:

OR SERVICE AREA ATTACHED SEE FIGURE NO.:

3/Fb. FREQENCY RANGE WITHIN WHICH THE CARRIERS WILL BE LOCATED

	Add/Mod/Sup of the freq. range	FREQUENCY	k/M/G HZ	IFRB IDENTIFICATION NUMBER for modification/suppression
FROM	A	22550.0	M	
TO	A	23550.0	M	

SPACE STATION EMISSIONS AND ASSOCIATED RECEIVING STATION(S) INFORMATION

EMISSIONS AND POWER CHARACTERS								7. MODULATION CHARACTERISTICS ATTACHED. SEE ATTACHMENT NO.[1]
6/4a3. NECESSARY BANDWIDTH OR Fc/G3a. DESIGNATION OF EMISSION[1]	4a2/4b. TOTAL PEAK POWER[1] +/-	dBW	4a1/G3b. MAXIMUM POWER DENSITY +/-	dBW/Hz	4C. MINIMUM CARRIER POWER[1] +/-	dBW	Fd. SPACE/EARTH STATION E.I.R.P.[1] +/-	dBW	
500MG1W	+	15.9	-	68.6					

F. SPACE STATION CHARACTERISTICS OF RECEIVING SPACE STATION FOR SPACE-TO-SPACE RELAYS

ADD/MOD/SUP of the station: A

a. SPACE STATION NAME: USASAT29D

G3c. BEACON AND TELEMETRY INFORMATION ATTACHED.[1] SEE ATTACHED NO.:

MORE EMISSIONS ON NEXT PAGE:

MORE ASSOC. RECEIVING STATIONS ON NEXT PAGE:

EARTH STATION

ADD/MOD/SUP of the station:

TYPE OF TYPICAL EARTH STATION:

8b1. RADIATION PATTERN (give reference pattern or provide diagram):

8a. RECEIVING SYSTEM NOISE TEMPERATURE Kelvins:

8b2. ANTENNA RADIATION DIAGRAM ATTACHED SEE FIGURE NO.:

REMARKS:

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D. SATELLITE NETWORK CHARACTERISTICS IN THE SPACE-TO-EARTH DIRECTION

SATELLITE TRANSMITTING ANTENNA BEAM DETAILS

5. CHARACTERISTICS OF THE BEAM

ADD/MOD/SUP of the beam: A

b. TRANSMITTING BEAM DESIGNATION: IS3

NOTE: For a steerable beam, the third character of the beam designation shall be "R".

OLD BEAM DESIGNATION (if changed):

ANTENNA CHARACTERISTICS

c1/d1/f1. MAXIMUM ISOTROPIC GAIN: +/- dBi: + 55.7

g. POLARIZATION [1]:

c2/d2. ANTENNA GAIN CONTOURS DIAGRAM ATTACHED. SEE FIGURE NO.:

e/f2. ANTENNA RADIATION PATTERN DIAGRAM ATTACHED. SEE FIGURE NO.:

h. ESTIMATED ANTENNA GAIN DIAGRAM VS ORBIT LONGITUDE ATTACHED. SEE FIGURE NO.: G8

INFORMATION TO BE PROVIDED FOR THIS TRANSMITTING ANTENNA BEAM

2a. CLASS OF STATION	2b. NATURE OF SERVICE	2a. CLASS OF STATION	2b. NATURE OF SERVICE
ES	CP		

PERIOD OF VALIDITY: 20 Years

1. SERVICE AREA:

OR SERVICE AREA ATTACHED SEE FIGURE NO.:

3/Fb. FREQENCY RANGE WITHIN WHICH THE CARRIERS WILL BE LOCATED

	Add/Mod/Sup of the freq. range	FREQUENCY	k/M/G HZ	IFRB IDENTIFICATION NUMBER for modification/suppression
FROM	A	59000.0	M	
TO	A	64000.0	M	

SPACE STATION EMISSIONS AND ASSOCIATED RECEIVING STATION(S) INFORMATION

EMISSIONS AND POWER CHARACTERS

f/4a3. NECESSARY BANDWIDTH OR Fc/G3a. DESIGNATION OF EMISSION [1]	4a2/4b. TOTAL PEAK POWER [1] +/- dBW	4a1/G3b. MAXIMUM POWER DENSITY +/- dBW/Hz	4C. MINIMUM CARRIER POWER [1] +/- dBW	Fd. SPACE/EARTH STATION E.I.R.P. [1] +/- dBW	7. MODULATION CHARACTERISTICS ATTACHED. SEE ATTACHMENT NO. [1]
500MG1W	+ 18.7	- 65.8			

F. SPACE STATION CHARACTERISTICS OF RECEIVING SPACE STATION FOR SPACE-TO-SPACE RELAYS

ADD/MOD/SUP of the station: A

a. SPACE STATION NAME: USASAT29H

G3c. BEACON AND TELEMETRY INFORMATION ATTACHED [1] SEE ATTACHED NO.:

MORE EMISSIONS ON NEXT PAGE:

MORE ASSOC. RECEIVING STATIONS ON NEXT PAGE:

EARTH STATION

ADD/MOD/SUP of the station:

TYPE OF TYPICAL EARTH STATION:

8b1. RADIATION PATTERN (give reference pattern or provide diagram):

8a. RECEIVING SYSTEM NOISE TEMPERATURE Kelvins:

8b2. ANTENNA RADIATION DIAGRAM ATTACHED SEE FIGURE NO.:

REMARKS:

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D. SATELLITE NETWORK CHARACTERISTICS IN THE SPACE-TO-EARTH DIRECTION

SATELLITE TRANSMITTING ANTENNA BEAM DETAILS

5. CHARACTERISTICS OF THE BEAM

ADD/MOD/SUP of the beam: A

b. TRANSMITTING BEAM DESIGNATION: IS4

NOTE: For a steerable beam, the third character of the beam designation shall be "R".

OLD BEAM DESIGNATION (if changed):

ANTENNA CHARACTERISTICS

	+/-	dBi
c1/d1/f1. MAXIMUM ISOTROPIC GAIN	+	55.7

g. POLARIZATION [1]:

c2/d2. ANTENNA GAIN CONTOURS DIAGRAM ATTACHED. SEE FIGURE NO.:

e/f2. ANTENNA RADIATION PATTERN DIAGRAM ATTACHED. SEE FIGURE NO.:

h. ESTIMATED ANTENNA GAIN DIAGRAM VS ORBIT LONGITUDE ATTACHED. SEE FIGURE NO.: G9

INFORMATION TO BE PROVIDED FOR THIS TRANSMITTING ANTENNA BEAM

2a. CLASS OF STATION: ES	2b. NATURE OF SERVICE: CP	2a. CLASS OF STATION:	2b. NATURE OF SERVICE:
2a. CLASS OF STATION:	2b. NATURE OF SERVICE:	2a. CLASS OF STATION:	2b. NATURE OF SERVICE:

PERIOD OF VALIDITY: 20 Years

1. SERVICE AREA:

OR SERVICE AREA ATTACHED SEE FIGURE NO.:

3/Fb. FREQENCY RANGE WITHIN WHICH THE CARRIERS WILL BE LOCATED

	Add/Mod/Sup of the freq. range	FREQUENCY	k/M/G HZ	IFRB IDENTIFICATION NUMBER for modification/suppression
FROM	A	54250.0	M	
TO	A	58200.0	M	

SPACE STATION EMISSIONS AND ASSOCIATED RECEIVING STATION(S) INFORMATION

EMISSIONS AND POWER CHARACTERS

6/4a3. NECESSARY BANDWIDTH OR Fc/G3a. DESIGNATION OF EMISSION [1]	4a2/4b. TOTAL PEAK POWER [1] +/- dBW	4a1/G3b. MAXIMUM POWER DENSITY +/- dBW/Hz	4C. MINIMUM CARRIER POWER [1] +/- dBW	Fd. SPACE/EARTH STATION E.I.R.P. [1] +/- dBW	7. MODULATION CHARACTERISTICS ATTACHED. SEE ATTACHMENT NO. [1]
500MG1W	+ 18.7	- 65.8			

F. SPACE STATION CHARACTERISTICS OF RECEIVING SPACE STATION FOR SPACE-TO-SPACE RELAYS

ADD/MOD/SUP of the station: A

a. SPACE STATION NAME: USASAT29D

G3c. BEACON AND TELEMETRY INFORMATION ATTACHED [1] SEE ATTACHED NO.:

MORE EMISSIONS ON NEXT PAGE:

MORE ASSOC. RECEIVING STATIONS ON NEXT PAGE:

EARTH STATION

ADD/MOD/SUP of the station:

TYPE OF TYPICAL EARTH STATION:

8b1. RADIATION PATTERN (give reference pattern or provide diagram):

8b2. ANTENNA RADIATION DIAGRAM ATTACHED SEE FIGURE NO.:

8a. RECEIVING SYSTEM NOISE TEMPERATURE Kelvins:

REMARKS:

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